

REMARKS

Favorable reconsideration of this application, in light of the preceding amendments and following remarks, is respectfully requested.

Claims 1-32 are currently pending in this application, of which claims 1, 11 and 17 are independent claims and the rest dependent. Claims 27-32 are newly added. Support for new claims appears, for example, on Page 9, lines 17-21, Page 11, line 28 – Page 12, line 4, Page 4, lines 26-31, Page 10, lines 6-8, Page 13, line 23, Page 14, lines 14-15 and Page 15, line 23 of the Specification as filed.

REJECTIONS UNDER 35 U.S.C. § 102

Claims 1-3, 5, 6, 11, 12, 14 and 15 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. 2,048,979 to Trotta. Applicant respectfully traverses this rejection for the reasons detailed below.

It is alleged in the Office Action that Trotta in FIG. 1 and the related explanation anticipates “a plurality of parallel strings arranged side by side and interconnected by a surface attachment between abutting surfaces of adjacent springs,” as recited in independent claim 1. Applicants respectfully disagree.

MPEP §2111 states:

CLAIMS MUST BE GIVEN THEIR BROADEST *REASONABLE* INTERPRETATION

During patent examination, the pending claims must be “given their broadest reasonable interpretation consistent with the specification.” >The Federal Circuit’s *en banc* decision in *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) expressly recognized that the USPTO employs the “**broadest reasonable interpretation**” standard:

The Patent and Trademark Office (“PTO”) determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their **broadest reasonable construction “in light of the specification as it would be interpreted by one of ordinary skill in the art.”** *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004).

The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. *In re Cortright*, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999)

(Emphasis Added)

Initially, Applicants respectfully submit that it is improper for the Examiner to construe a string to be a plurality of strings in a vertical direction in the FIG. 1 of Trotta. This is because Trotta clearly indicates at least on page 1, col. 1, lines 5-14 that a string is comprised of a long fabric member folded upon itself which at regular intervals includes pockets or cells each of which houses an upright spring. Based on this definition of a string of Trotta, Applicants respectfully submit that a string of Trotta is in the horizontal direction in FIG. 1 and not in the vertical direction as alleged by the Examiner.

The Examiner is reading the recitation "surface attachment" of independent claim 1 upon the fabric spacing section 13 illustrated in FIG. 1 of Trotta. However, as is seen in FIG. 1 and FIGS. 3-4 of Trotta the fabric spacing section 13 does not interconnect the strings of Trotta and is not present between the abutting surfaces of adjacent strings of Trotta. The fabric spacing section 13 of Trotta is instead between two adjacent coil springs within the same string of Trotta.

At least for the above reasons, Applicants respectfully submit that Trotta fails to anticipate at least "a plurality of parallel strings arranged side by side and interconnected by the surface attachment between abutting surfaces of adjacent strings," as recited in independent claim 1.

It is alleged in the Office Action at page 2 that Trotta discloses a "slit" of independent claim 1 in FIGS. 3-4 and the related disclosure. Applicants respectfully disagree.

As is clearly illustrated in FIGS. 3-4 of Trotta the "slit" or opening is between two adjacent coil springs that do not belong to the same string. Namely, this "slit"

or opening of Trotta is a result of the attaching the coil spring at the top and bottom ends by the latch spring wires 16. The adjacent coil springs in the same string of Trotta do not include any "slit," as required by independent claim 1. Applicants further submit that the openings in Trotta do not allow an increased adjacent separation distance to be formed between the adjacent strings. In Trotta, the strings are always maintained in fixed contact with each other at the upper and lower ends using the latch spring wires 16. The openings are formed due to the use of convex or hourglass shaped springs as disclosed on page 3, col. 1, lines 1-4 of Trotta.

Applicant respectfully submits that the mattress according to example embodiments is manufactured in a more cost-effective manner, requires less material and is easy to produce. On the other hand, the Trotta mattress is a very dense mattress with almost no individual resilience. Trotta discloses a mattress where strings (rows) of enclosed springs are connected together both at the upper and lower side by means of a latch spring wires 16, arranged in fixing projections 17 and 19 connecting the turns of the adjacent springs together in direct contact with each other, as disclosed on Page 2, Col. 1, line 68 – Col. 2, line 2 of Trotta. The only separation obtained between the springs in Trotta is the separation between adjacent springs not belonging to the same string, due to the hour-glass shape of the springs.

Further, the latching connection using the latch spring wires 16 prevents any individual resilience of the springs. Accordingly, Trotta discloses a very dense mattress, which is also rather uncomfortable by today's standards. Still further, the latching interconnection of the strings (the rows) appears to be a very complicated and tedious process. Even assuming for the sake of argument (not admitted) that the columns of Trotta in FIG. 1 are strings of springs as alleged by the Examiner, the latching interconnection would still not constitute a "surface attachment."

The example mattress and its method provides a more cost-efficient mattress by allowing the springs to be separated from each other, but still being effectively held together. This is provided by use of less material than in prior solutions to make such separations, and therefore enables a more cost-efficient mattress. Further, the mattress according to example embodiments avoids the problem of so-called "false lofts", which is experienced in the prior art solutions. Still further, the mattress according to example embodiments enables a very efficient air circulation through the mattress. Neither of the cited documents provide any similar solution to these problems, or, for most of the documents, address these questions.

With respect to claims 5 and 13, Applicant respectfully submits that because Trotta fails to anticipate the "strings" and "slit" of claim 1, Trotta also fails to anticipate "wherein the covers are joined together on both sides along the slit to close the covers along the slit," as recited in claim 5 and the some what similar features of claim 13. Even assuming for the sake of argument that the strings of Trotta are vertical (as assumed incorrectly by the Examiner), the cloth covers along both sides of the opening are not joined to close the covers along the opening and also cannot be joined without damaging the cloth material. As is clearly seen in FIG. 3, the cloth covers are spaced apart.

With respect to claims 6 and 14, Applicant submits that the fabric spacing 13 in FIG. 1 of Trotta is as a result of stitching. Trotta, Page 2, Col. 1, lines 27-35. Trotta fails to anticipate at least one of "gluing and welding" as recited in claims 6 and 14,

For at least all of the above reasons, Applicants respectfully submit that Trotta fails to anticipate each and every limitation of independent claim 1 and the somewhat similar features recited in independent claim 11. Claims 2-3, 5-6, 12, 14 and 15, dependent on one of independent claims 1 and 11, are also patentable at

least for the reasons given above with respect to claims 1 and 11 and also on their own merits.

Applicant, therefore, respectfully requests that the rejection to claims 1-3, 5, 6, 11, 12, 14 and 15 under 35 U.S.C. § 102(b) be withdrawn.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 4, 7-10, 13, 16 and 24-26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Trotta. Applicant respectfully traverses this rejection for the reasons detailed below.

With respect to claim 16, Applicant submits that, based on the Examiner's incorrect interpretation of the plurality of strings of the claims, Trotta fails to disclose or suggest any "traverse joining line. The connections between coil springs are only at the top and bottom ends of the coil springs using the latch spring wires 16 and no "traverse joining lines" are present.

Further, claims 4, 7-10, 16 and 24-26 are dependent on one of independent claims 1 and 11, and claims 1 and 11 have been shown to be patentable at least for the reasons above. Claims 4, 7-10, 16 and 24-26 are also patentable at least by virtue of their dependency on one of independent claims 1 and 11.

Applicant, therefore, respectfully requests that the rejection to claims 4, 7-10, 16 and 24-26 under 35 U.S.C. §103(a) be withdrawn.

Claims 17-23 are rejected under 35 U.S.C. §103(a) as being unpatentable over US 4,986,518 to Stumpf ("Stumpf-518") in view of Trotta and US 4,578,834 ("Stumpf-834"). Applicant respectfully traverses this rejection for the reasons detailed below.

Acknowledging the deficiencies of Stumpf-518 and Stumpf-834, the Examiner relies on the teachings of Trotta to disclose "surface attachment" as

recited in independent claim 17. The Examiner alleges that Stumpf-834 gives motivation to add a surface attachment between abutting surfaces. Applicant respectfully incorporates the discussion above with respect to claim 1 and submits that Trotta cannot be modified in the teachings of Stumpf-834 to include any "surface attachments." This is because the Stumpf mattress uses hourglass shaped coil springs. As a result of using these hourglass shape coil springs, the Trotta mattress, as illustrated in FIGS. 3-4, includes openings between coil springs of adjacent strings. These openings are also as a result of attaching the top and bottom ends of the coil springs of adjacent strings using the latch spring wire 16.

Modifying the Trotta mattress to include a surface attachment as disclosed by Stumpf-834 would require attaching the abutting surfaces of the coil springs in adjacent strings in the openings using the surface attachment. Because the Trotta mattress uses hour glass shaped springs, the cover material of adjacent strings does not meet each other. Therefore, there can be no "surface attachment" between the surfaces of coil springs belonging to adjacent string. Even if a "surface attachment" is included, this would require compressing the springs so that the cloth pockets separate so that they can be attached. However, upon the hour glass shaped coil spring being uncompressed or released, the cloth pocket will be stretched and damaged, and rendered unsatisfactory for its intended purpose. MPEP 2143.01(V) (If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification). Applicant respectfully submits that the alleged combination of Trotta and Stumpf-834 fails to render claim 17 *prima facie* obvious, since the modification renders the combination unsatisfactory for its intended purpose.

The Examiner acknowledges that Stumpf-518 does not disclose means for creating a slit. The Examiner alleges that Trotta discloses a slit between springs

and that “*One of ordinary skill in the art would have recognized that slits (and the associated machinery needed to create them) such as Trotta’s could be added to the apparatus of Stumpf (‘518) to provide Stumpf with the predictable established function of the slits (which is to allow the springs to flex in relation to one another).*”
(Emphasis Added)

Applicant respectfully incorporates the discussion above with respect to claim 1 and submits that the “slits” of Trotta are not configured to create an “increased interjacent separation distance to be formed between adjacent coils springs.” Further, the slits of Trotta are not between “at least two coil springs located adjacent to one another within the same string.” The “slit” or opening of Trotta are as result of connecting the top and bottom ends of the cloth covers using the latch spring wires 16, thereby creating a dense mattress. The allegedly “predictable established function of the slits” is far from obvious.

Further, Applicant submits that there is absolutely no mention or indication of any “cutting tool,” as recited in claims 22-23 in any of Stumpf-518, Stumpf-834 and Trotta. None of Stumpf-518, Stumpf-834 and Trotta provide any motivation or suggest of any “cutting tool,” as recited by claims 22-23.

For at least all these reasons, Stumpf-518, Stumpf-834 and Trotta, alone or in any combination, fail to render the limitations of claims 17 obvious to one of ordinary skills in the art. Claims 18-23, dependent on independent claim 17, are also allowable at least for the reasons given above with respect to claim 17 and also on their own merits.

Applicant, therefore, respectfully requests that the rejection to claims 17-23 under 35 U.S.C. § 103(a) be withdrawn.

New Claims

Claims 27-32, dependent on one of independent claims 1, 11 and 17, are newly added are patentable for the reasons given above with respect to claims 1, 11 and 17 and also on their own merits.

CONCLUSION

In view of the above remarks and amendments, the Applicant respectfully submits that each of the pending objections and rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested.

Pursuant to 37 C.F.R. §1.17 and 1.136(a), Applicant hereby petitions for a two (2) months extension of time for filing a reply to the outstanding Office Action and submits the required small entity extension fee of \$245.00 herewith.

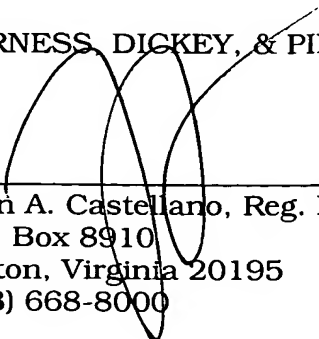
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John A. Castellano at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By



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